

CLAIMS

1. An overhead camshaft internal combustion engine having a valve mechanism which comprises

5 an intake or exhaust poppet valve having a valve stem, two cams mounted for rotation about a common axis, a first rocker mounted on a pivot shaft and acting between the first cam and the valve stem, to open and close the poppet valve in synchronism with the rotation of the
10 first cam, and

15 a second rocker mounted in the engine on a fixed pivot shaft and acting between the second cam and the pivot shaft of the first rocker, to raise and lower the pivot point of the first rocker cyclically in synchronism with the rotation of the second cam.

2. An engine as claimed in claim 1, wherein the engine has two valves per cylinder, and the valve mechanism comprises two first rockers following the movements of two
20 first cams which are arranged symmetrically on opposite sides of a single second cam and second rocker.

25 3. An engine as claimed in claim 2, wherein springs are provided to urge the followers of the second rockers into contact with the second cams.

30 4. An engine as claimed in claim 1, wherein the engine has a single valve per cylinder, and the pivot shaft of the first rocker is carried by two second rockers following two second cams which are symmetrically arranged one on each side of the first cam and first rocker.

35 5. An engine as claimed in claim 4, wherein a spring is provided to urge the followers of the second rocker into contact with the second cams.

6. An engine as claimed in claim 1, wherein a hydraulic lash adjuster is provided between the or each valve its associated first rocker.

5 7. An engine as claimed in claim 6, wherein an adjustable stop is associated with each first rocker to limit the expansion of the hydraulic lash adjuster.

10 8. An engine as claimed in claim 1, wherein a phase changing mechanism is provided to vary the relative phase of the first and second cams.

15 9. An engine as claimed in claim 1, wherein a phase change mechanism is provided to vary the phases of the first and the second cams simultaneously in relation to the phase of the engine crankshaft.